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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/990,306	11/23/2001	Kiyotaka Osumi	35.C15984	2689

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FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER	
KOCH, GEORGE R	

ART UNIT	PAPER NUMBER
1734	8

DATE MAILED: 10/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

A98

Office Action Summary	Application No.	Applicant(s)	
	09/990,306	OSUMI ET AL.	
	Examiner	Art Unit	
	George R. Koch III	1734	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) *11 and 12* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10,13 and 14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of group I, claims 1-10 and 13-14 in Paper No. 7 mailed on 8-14-2003 is acknowledged. The traversal is on the ground(s) that the restriction requirement places a burden on the applicant and the US Patent and Trademark Office. This is not found persuasive because there is a burden to search and prosecute both groups, and the search and prosecution of the groups do not necessarily overlap. For example, group I requires an extensive control system search, and prosecution thereof. However, group II requires no search for corresponding control methods, and thus no prosecution thereof. Furthermore, group II requires a specific material used as in claim 12, but no such element is required in group I.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitagawa (US Patent 6,136,142)

Kitagawa discloses a laminating apparatus comprising fixing means (items 20A and 20B), feed means (items 14, 14B, 14C, 59 and 62A), film introducing means (for example, including items 52, 18, and 10 and their subcomponents), conveying means (for example, items 30 and 15A, and items 21A and 21B), and a cutter (item 32). Kitagawa also discloses a control unit (see Figure 2), which is capable of performing the claimed steps. Kitagawa's control discloses control of the conveying means, the fixing means, the film introducing means, and the feed means. Kitagawa also discloses

control of the cutter through the traveling drive device (item 32C) and traveling cylinder (item 32D).

Kitagawa does not disclose a discharge port, although Kitagawa discloses a discharge direction. Kitagawa does disclose that the cutter is between the start of the conveying means (taken to be the first roller labeled 15A) and the discharge direction.

However, it would have been obvious to one of ordinary skill in the art at the time of the invention that the discharge direction would represent a discharge port, as the manufacturing apparatus would require a mechanism or structure for outputting the products. Therefore, It would have been obvious to one of ordinary skill in the art at the time of the invention to have included a discharge port in the overall apparatus at the end of the disclosed discharge direction.

As to claim 2, Kitagawa discloses that the control unit controls the cutter (see Figure 2) to cut at the conveying position.

As to claim 3, Kitagawa discloses leading and trailing end sensors (items 56 and 58) for sensing the substrate similar to as claimed. The control unit is capable of performing the claimed steps.

As to claims 4 and 5, Kitagawa discloses that the fixing means includes a pair of rollers (items 20A and 20B). Kitagawa also suggests that the rollers be provided with heating sources (see column 14), and that one roller be capable of being shifted up and down (via item 50). The situation when a roller is shifted up, i.e., disengaged, is considered the "waiting condition".

As to claim 6, Kitagawa discloses a control unit (see Figure 2), which is capable of performing the "unit-of-sheet" mode disclosed. Specifically, Kitagawa discloses that the substrate and lamina means are fixed by the fixing means, and the fixed substrate and lamina are conveyed by the conveying means and cut by the cutter and then sent through the discharge direction.

6. Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitagawa as applied to claims 1-6 above, and further in view of Cummings (US Patent 4,714,504).

As to claims 7-10, Kitagawa is silent as to a second sensor downstream of the fixing means.

Cummings discloses a downsteam sensor (item 62) for use in a film lamination apparatus which monitors the presence of the substrate and the film (see especially columns 7 and 8). Cummings utilizes this information in order to control the subsequent lamination operations (as shown in the step chart in columns 7 and 8). One in the art would appreciate that such a sensor would allow for proper sequencing of production steps, improving production efficiency. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized such a sensor in order to improve production efficiency.

7. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Conwell (US Patent 6,462,765) and Kitagawa (US 6,136,142).

Conwell discloses a image forming apparatus comprising a recording apparatus (items 3, 4,5, and 6) and a lamination apparatus (items 7-13). Conwell discloses fixing means (item 10), film introducing means (item 7), and a cutter (item 11). Conwell also discloses a record medium supply (item 1 and 2). Conwell also discloses a discharge port (item 14).

Conwell is silent as to the feed means, the conveying means (and thus, the cutter being between the discharge port and the conveying means) and a control unit as claimed.

Kitagawa discloses a laminating apparatus comprising fixing means (items 20A and 20B), feed means (items 14, 14B, 14C, 59 and 62A), film introducing means (for example, including items 52, 18, and 10 and their subcomponents), conveying means (for example, items 30 and 15A, and items 21A and 21B), and a cutter (item 32). Kitagawa also discloses a control unit (see Figure 2), which is capable of performing the claimed steps. Kitagawa's control discloses control of the conveying means, the fixing means, the film introducing means, and the feed means. Kitagawa also discloses control of the cutter through the traveling drive device (item 32C) and traveling cylinder (item 32D). One in the art would appreciate that the feed means ensures proper positioning of the substrate prior to joining with the film and that the conveying means ensures proper positioning and movment of the medium and film towards the discharge port and the cutter. Furthermore, on in the art would appreciate that the control unit as disclosed in Kitagawa would enable proper sequencing and production of the joined lamina, as well as ensuring proper manufacturing efficiencies. Therefore, it would have

been obvious to one of ordinary skill in the art at the time of the invention to have utilized the feed means, conveying means, and control unit of Kitagawa in the printing and lamination apparatus of Conwell in order to ensure proper sequencing and production of the joined lamina, as well as ensuring proper manufacturing efficiencies.

As to claim 14, Conwell discloses a heat based recording system, and does not disclose an ink jet based recording system for the overall apparatus. However, ink jet systems are well known and conventional in the lamination business, and provide improved color capabilities at a tradeoff of higher disposables (i.e., ink) costs. One in the art would be well aware of these engineering tradeoffs and would select the appropriate design for the appropriate application. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized such ink jet recording systems in order to access improved color capabilities.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George R. Koch III whose telephone number is (703) 305-3435 (TDD only). If the applicant cannot make a direct TDD-to-TDD call, the applicant can communicate by calling the Federal Relay Service at 1-800-877-8339 and giving the operator the above TDD number. The examiner can normally be reached on M-Th 10-7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (703) 308-3853. The fax phone

number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

George R. Koch III
October 13, 2003

RICHARD CRISPINO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700